

# Partners In Flight

## North American Landbird Conservation Plan

### Setting Continental Priorities for Landbird Conservation

Terry Rich

Partners In Flight

USFWS



# Continental Plan – Authors

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Carol Beardmore	US
Humberto Berlanga	MX
Peter Blancher	CA
Michael Bradstreet	CA
Greg Butcher	US
Dean Demarest	US
Erica Dunn	CA
Chuck Hunter	US
Eduardo Iñigo-Elias	MX
Judith Kennedy	CA
Art Martell	CA
Arvind Panjabi	US
David Pashley	US
Ken Rosenberg	US
Christopher Rustay	US
Tom Will	US





# Outline

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- **Plan Objectives**
- **Biological Assessment**
- **Continental Priorities**
- **Avifaunal Regions**
- **Next Steps**

# Continental Plan – Objectives

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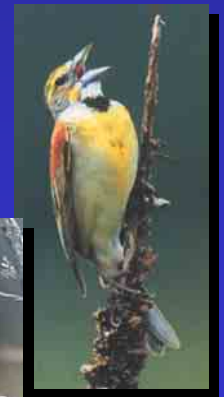
- To provide a continental perspective on landbird conservation priorities
- Estimate population sizes and set population objectives
- Identify highest priority species –  
Partners In Flight Watch List
- Identify stewardship species –  
Keys to biotic integrity of regions





## Species Scope

448 species of landbirds in the U. S.  
and Canada





# For version 2.0

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**Working actively with Mexico to bring another 450 species of landbirds into plan.**



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# Global Scores Database

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Threats to Breeding Habitat	TB
Threats to Non-breeding Habitat	TN
Area of Breeding Distribution	BD
Area of Non-breeding Distribution	ND
Population Size	PS
Population Trend	PT

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**Future vulnerability on each factor**

**Low - Score 1**

**High - Score 5**





# Species of Continental Importance

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- **Watch List Species (100 species)**
  - Combined score  $>14$
  - Score of 13 with PT = 5
- **Stewardship Species**
  - “responsibility”
  - Strong ties to the ecological unit
- **Total = 195 species**



# Alaska Watch List Species

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- **Arctic**

- Harris's Sparrow
- Short-eared Owl
- Rusty Blackbird
- McKay's Bunting
- Smith's Longspur

- **Northern Forest**

- Olive-sided Flycatcher
- Blue Grouse
- Harris's Sparrow
- Rusty Blackbird
- Smith's Longspur

## **Pacific**

Olive-sided Flycatcher  
Blue Grouse  
Rufous Hummingbird  
Black Swift  
Band-tailed Pigeon



# Information for Each of 448 Species

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## Population Size

% Population in each BCR and Avifaunal Region

Population Objective – Based on 1970s

Maintain

Increase by 50%

Double

Conservation Action Category

IM, MA, PR

Monitoring Need Category

MO1, MO2, MO3



# **Purpose of Population Size Estimates**

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**To meet expectations of key partners  
NAWMP**

**To provide perspective on the task at hand  
Thousands or millions or billions?**

**To provide hard link to habitat area objectives  
How much habitat do we need?**

**To stimulate and initiate dialogue on methods  
Science committee being formed**



# Population Size Estimation Method

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Used BBS data from 1990s

Counts averaged across years to give  
mean/species/route

Counts averaged across all routes within  
a geopolitical region (BCR x State)

Index of abundance = Mean count x Area  
25.1 km<sup>2</sup>

Correction factors applied to index



# Correction Factors

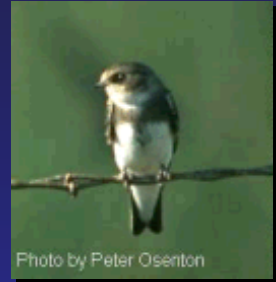
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**Pair Correction** - For each individual detected

How many more are there?

Depends on social behavior, mating system &c.



**Detection Area Correction**

What is effective sampling area?

$$\Pi \cdot (1/4 \text{ mile})^2$$

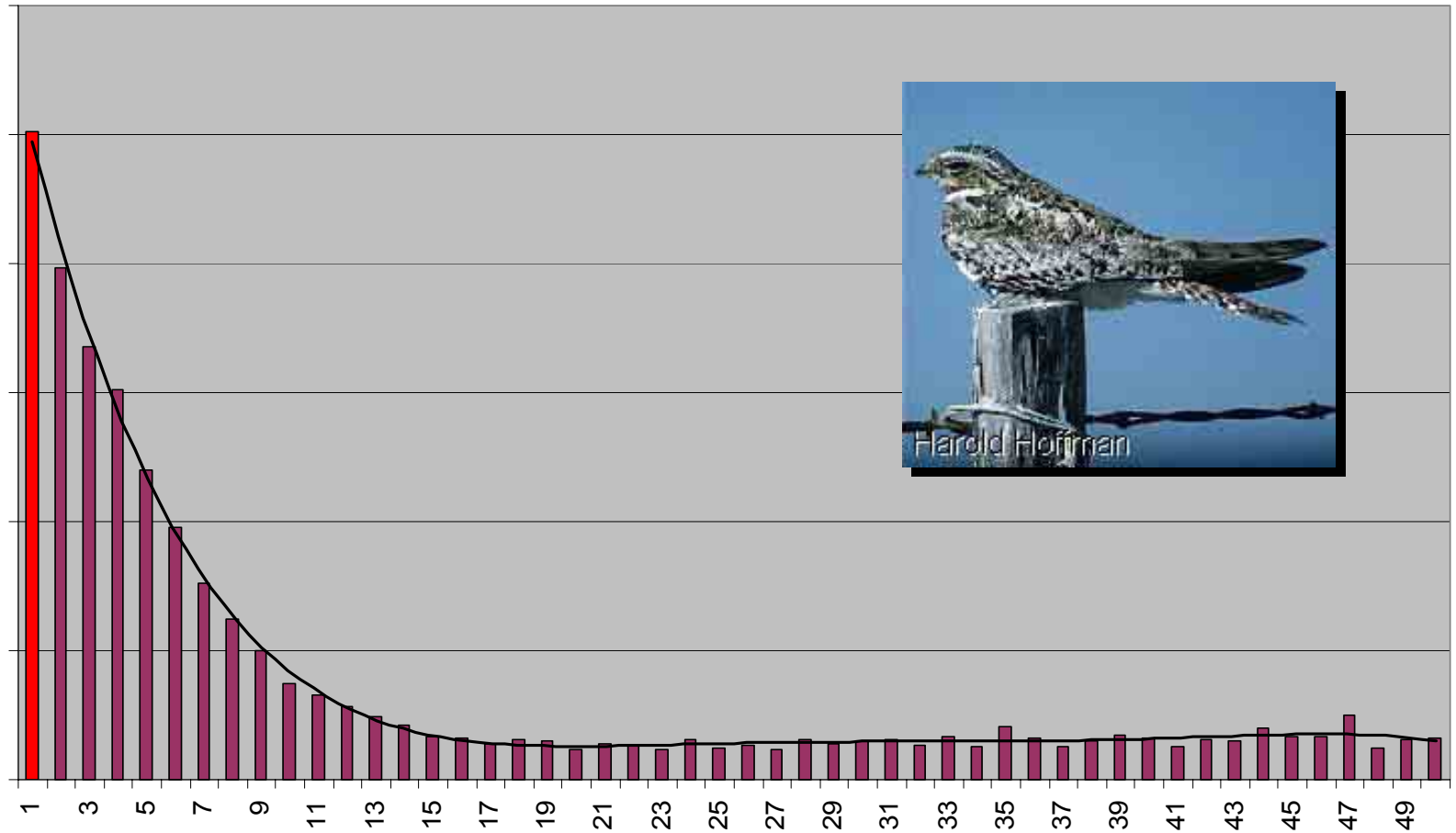


**Time of Day Correction**



# Time of Day Correction

Common Nighthawk = 6.73



———— BBS Stop/Time of Day —————>

# Population Objectives

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**Baseline is 1960s**

**Based on trend over last 30 years**

**Timeline for achievement is 30 years**

## Objectives

**Double: For PT=5 (50% decline over 30 years)**

**Increase 50%: For PT=4 (15-50% decline)**

**Maintain/Increase: For PT=3 (unknown/imprecise trends)**

**Maintain: For PT=1 or PT=2 (stable or increasing)**



# Population Objectives

Calculating initial population objective for

Any sub-continental unit is simple

But this just starts the dialogue that will lead

To “real” population objectives



Convert  
To Habitat  
Objectives



Track and  
Report at  
Continental  
scale

Resolve trade-offs

Within habitats and among BCRs



# Outline

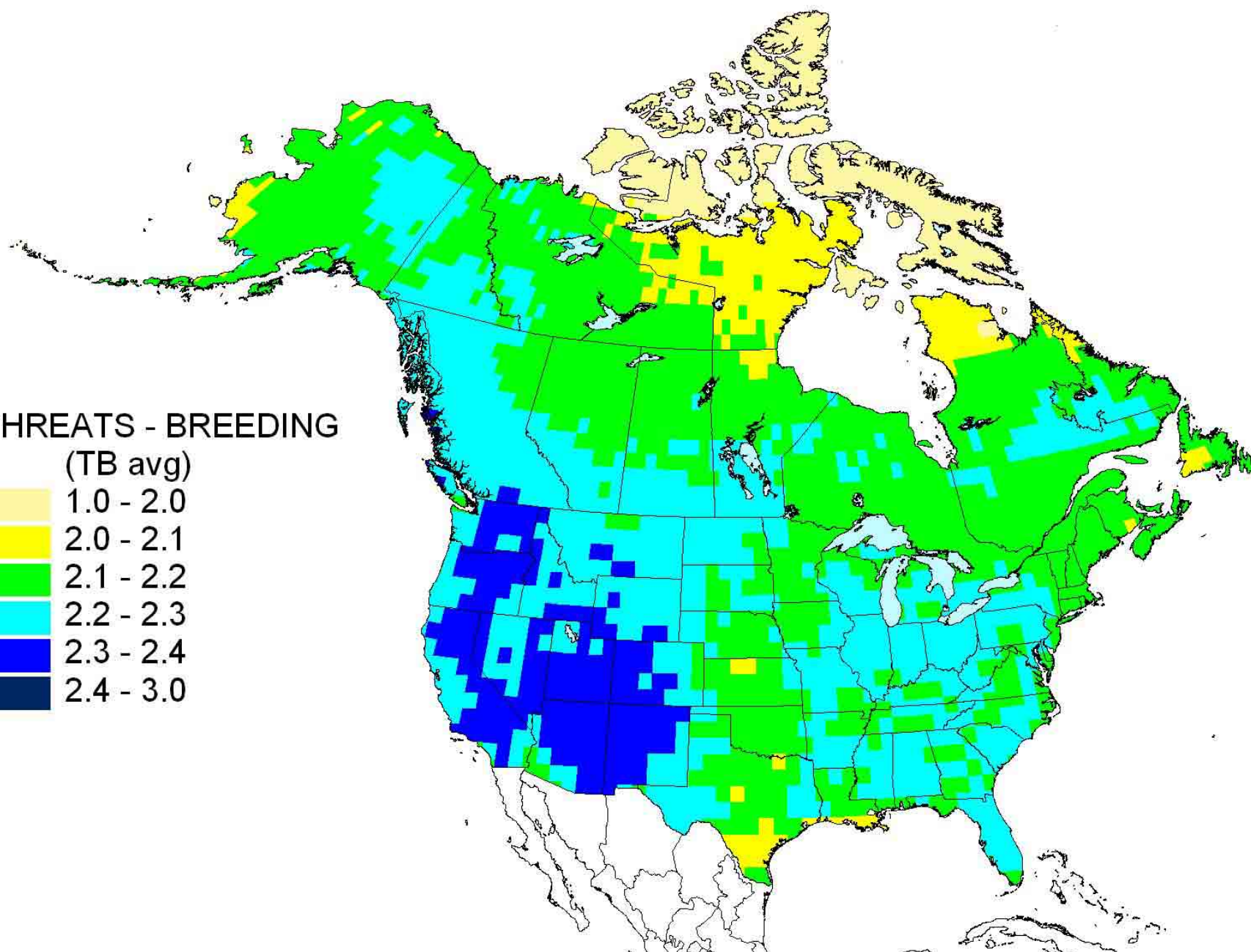
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## THREATS - BREEDING

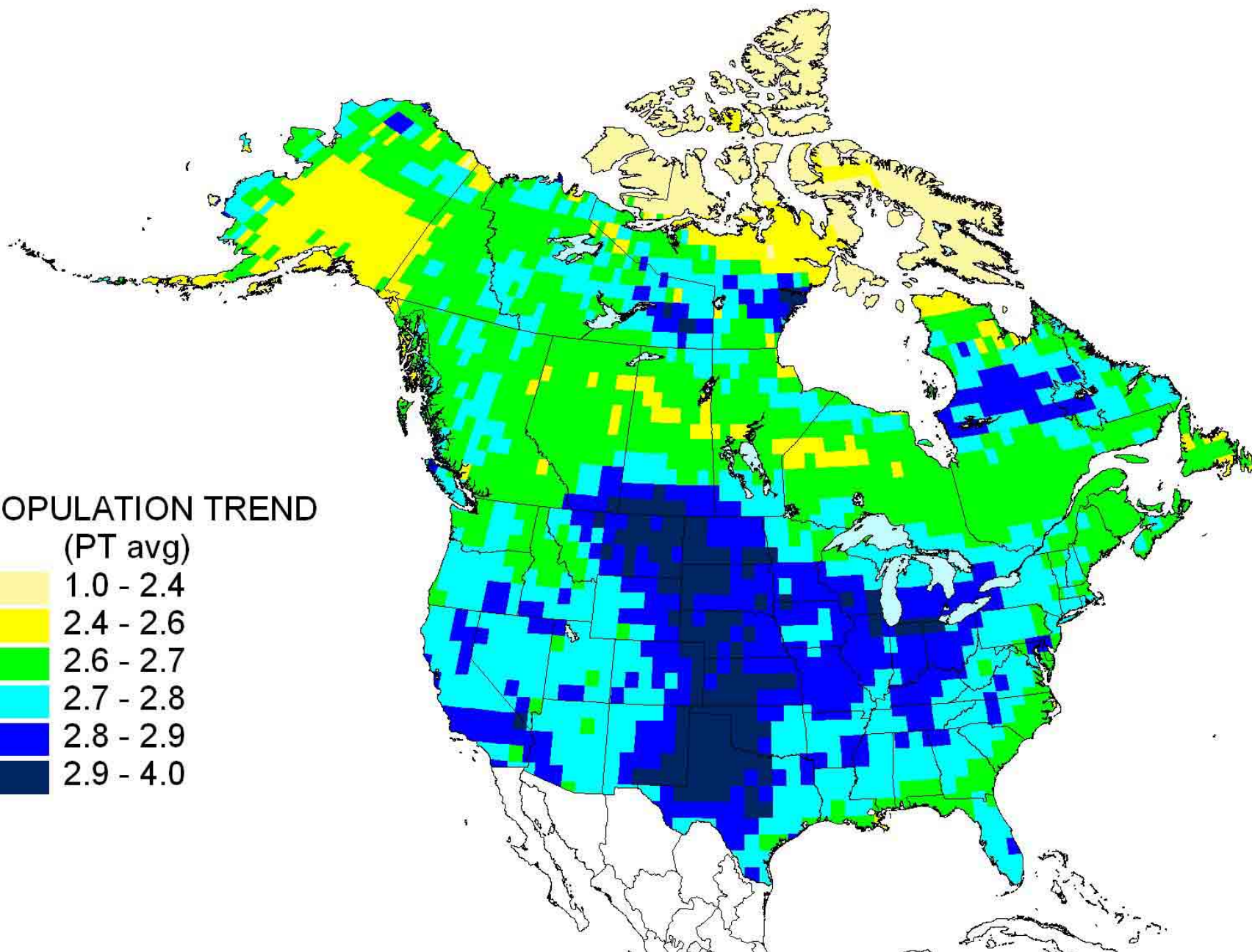
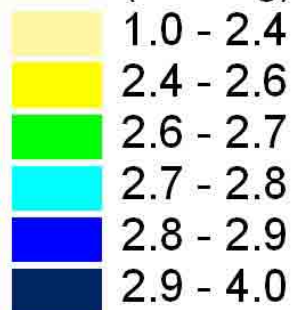
(TB avg)





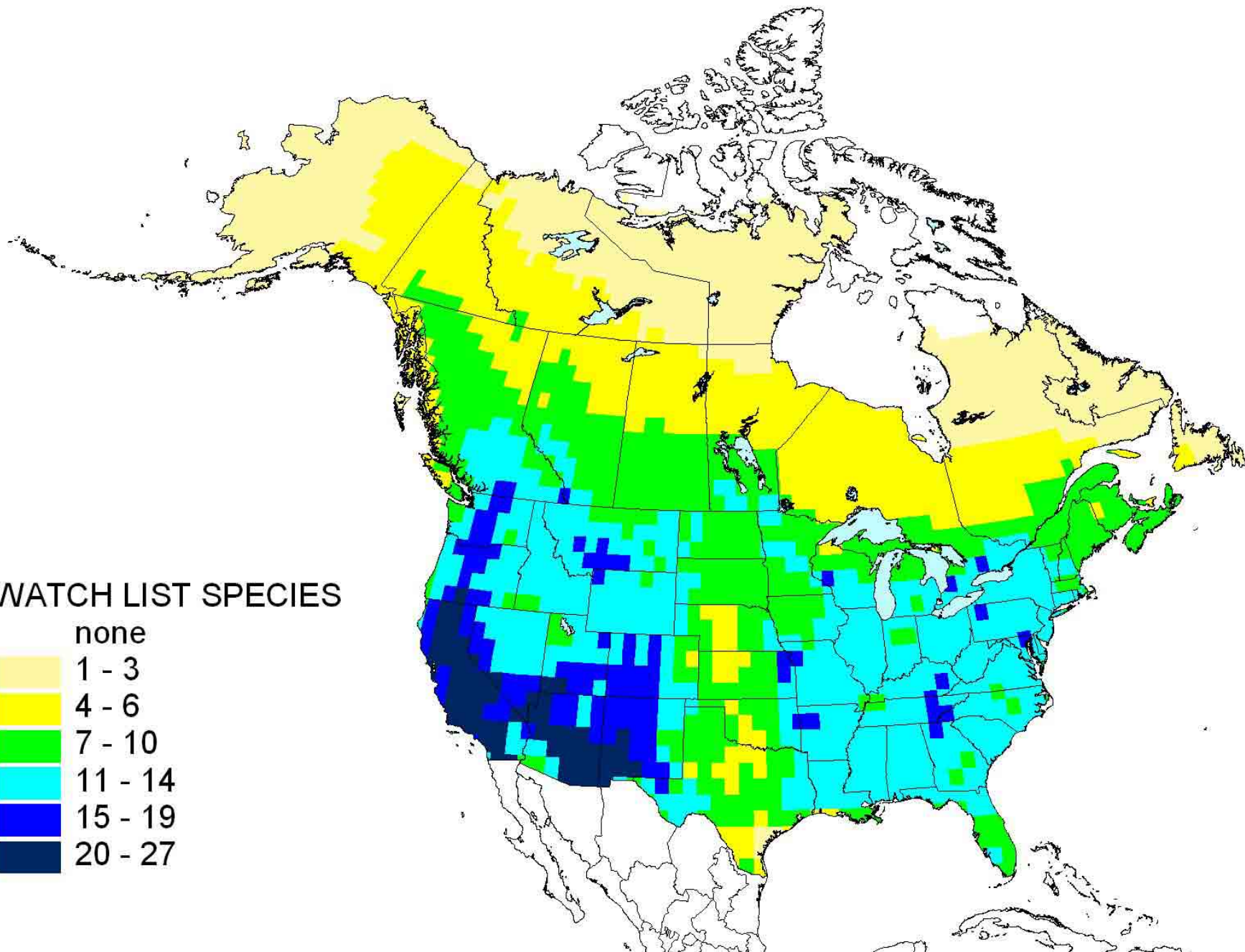
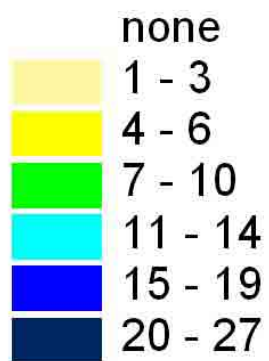
## POPULATION TREND

(PT avg)





## WATCH LIST SPECIES





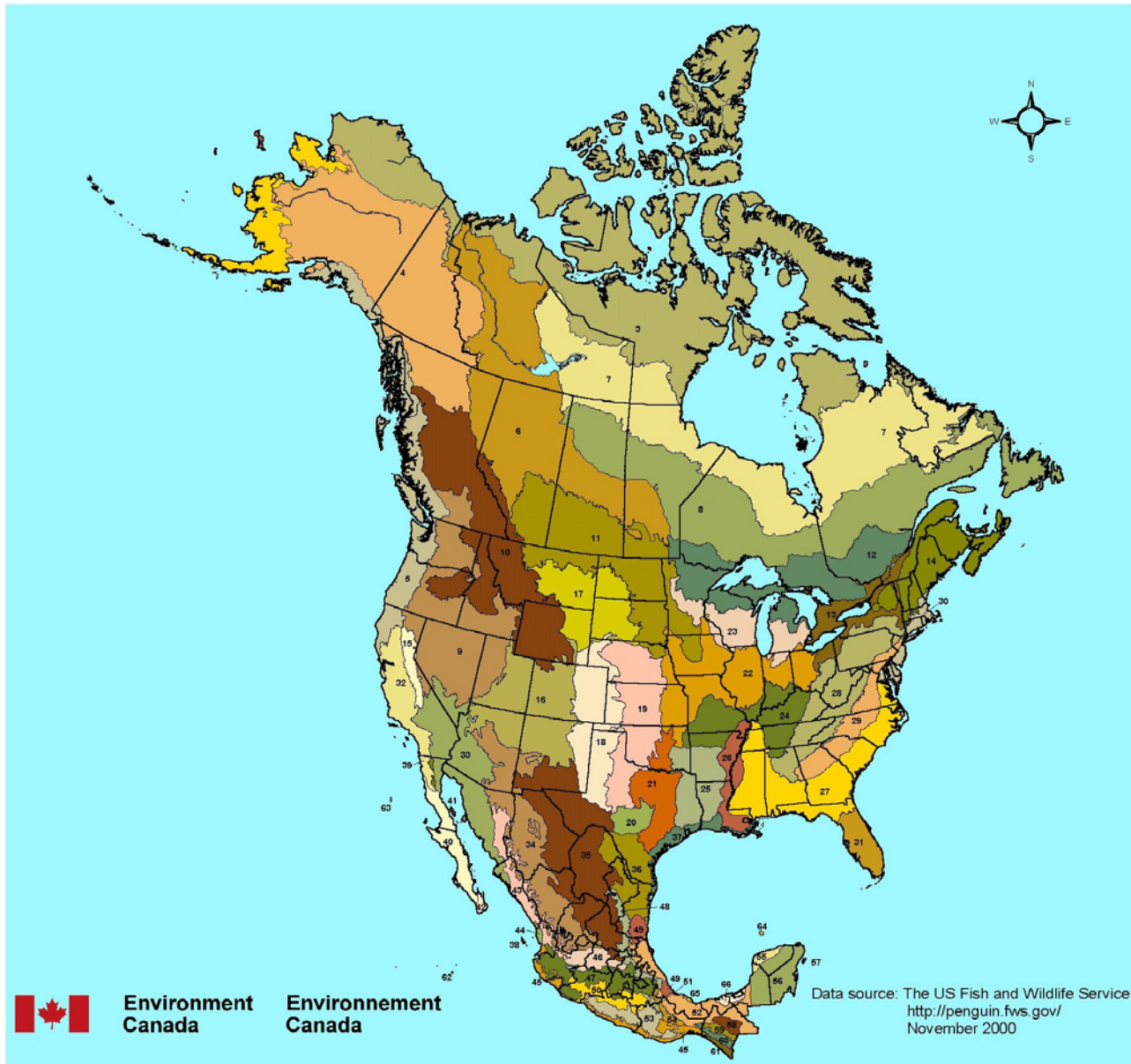
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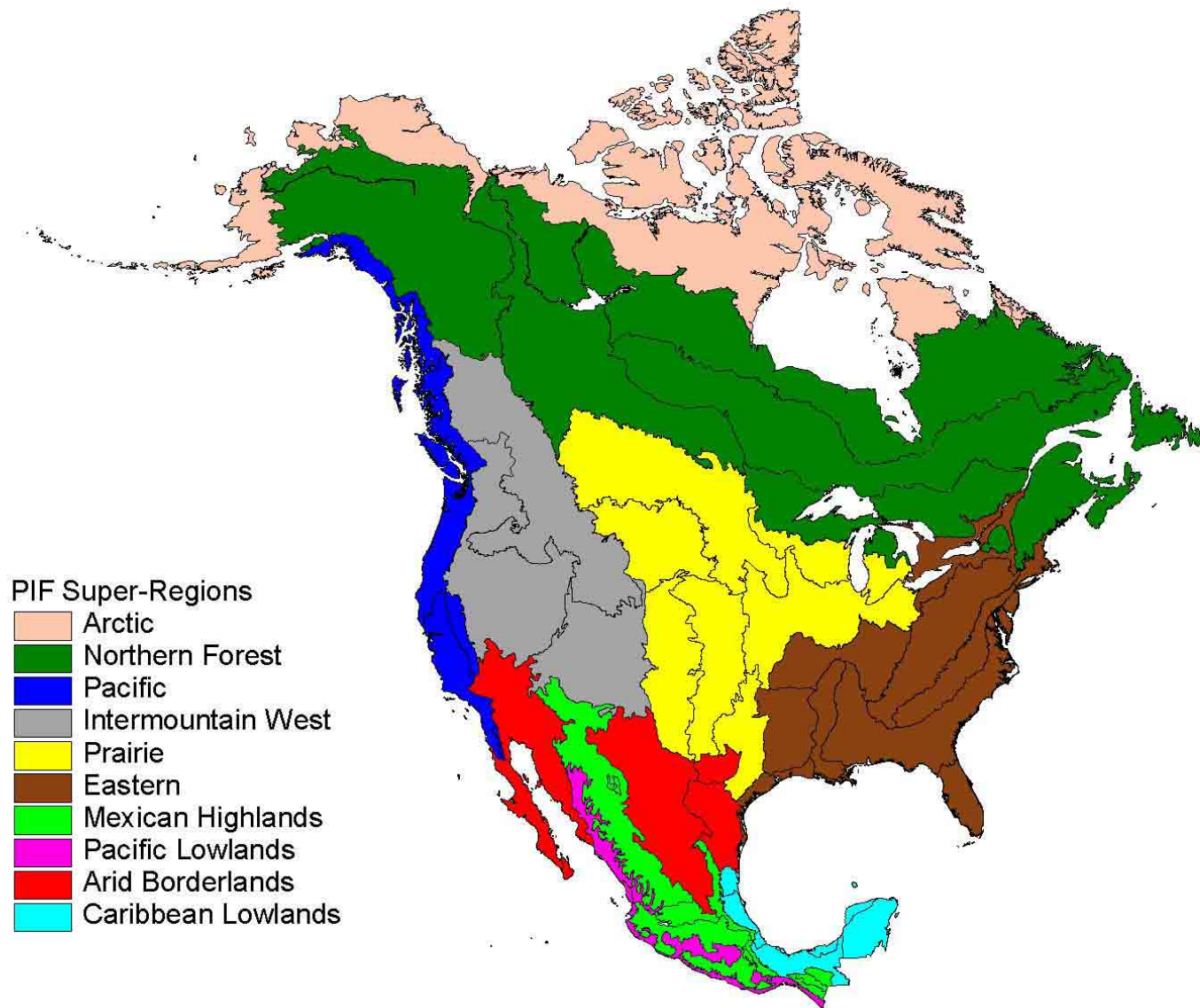


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# BIRD CONSERVATION REGIONS OF NORTH AMERICA



# Avifaunal Regions





Arctic

Species	Conservation Action	% Breeding Population	Population Objective	Monitoring Need
Watch List Species				
Harris's Sparrow	MA	92%	Double	Mo2
Short-eared Owl	MA	13%	Double	Mo2,3
McKay's Bunting	PR	100%	Increase 15%	Mo1
Stewardship Species (High % Global Population in Region)				
American Pipit	PR	86%	Maintain	Mo2
Gray-crowned Rosy-Finch	PR	83%	Maintain	Mo1
Golden-crowned Sparrow	PR	77%	Maintain	Mo2
Additional Stewardship Species (High % W. Hemisphere Population in Region)				
Snowy Owl	PR	100%	Maintain	Mo2
Snow Bunting	PR	100%	Maintain	Mo2
Hoary Redpoll	PR	100%	Increase 15%	Mo2
Lapland Longspur	PR	100%	Increase 15%	Mo2
Rough-legged Hawk	PR	99%	Maintain	Mo2
Rock Ptarmigan	PR	99%	Increase 15%	Mo1
Gyr Falcon	PR	97%	Maintain	Mo2
Peregrine Falcon	PR	94%	Maintain	Mo2
Willow Ptarmigan	PR	83%	Increase 15%	Mo1

# Monitoring

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- Increase and enhance BBS
- Establish new programs
- Establish monitoring for boreal birds
- Improve migration monitoring





# Next Steps

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- Print final of version 1.0 by early 2004
- Begin dialogues on population estimates with sub-continental units
- Finalize monitoring plan for all species
- Add Mexican species
- Add wintering priorities
- Add subspecies and populations



# Neotropical Migratory Bird Conservation Act

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- Upland bird and habitat emphasis  
[www.northamerican.fws.gov](http://www.northamerican.fws.gov)
- Proposals due January 16, 2004
- 1 million added in 2004 (to 4 million total)
- What they like.....
  - Large-scale (multi-sites, large landscapes)
  - International
  - Multiple components



A photograph of a waterfall cascading down a rocky cliff in a forest. The water is white and frothy as it falls, creating a misty spray at the bottom. The surrounding area is covered in dense green foliage and trees. The title text is overlaid on the left side of the image.

# **Black Swift Nesting Inventory**

**High priority species**

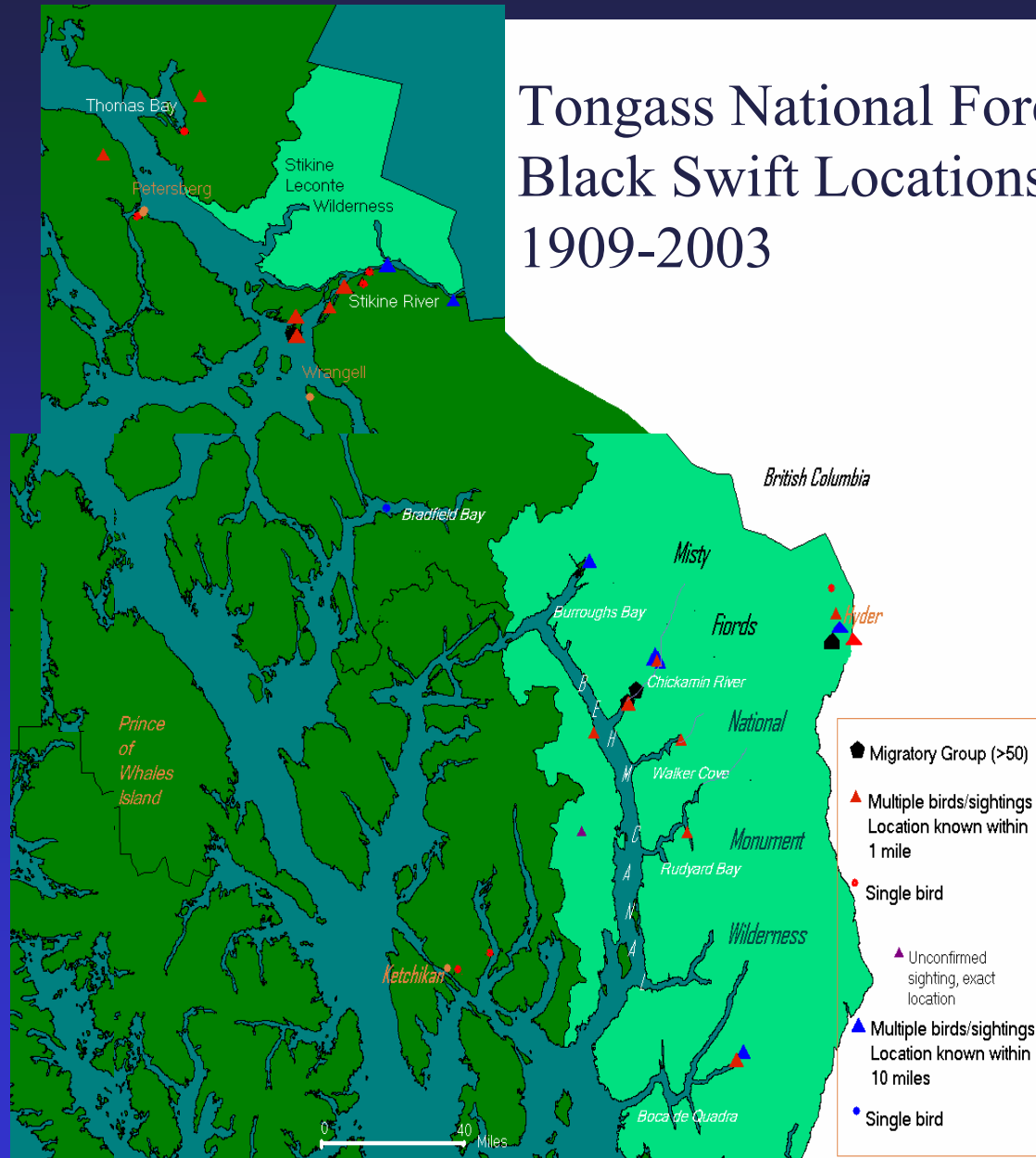
**Standardized  
protocol**

**Volunteers**

**Alaska database**

**Lesson's learned**

# Tongass National Forest Area Black Swift Locations 1909-2003



Note: Single records exist for each Juneau, Sitka and Prince William Sound